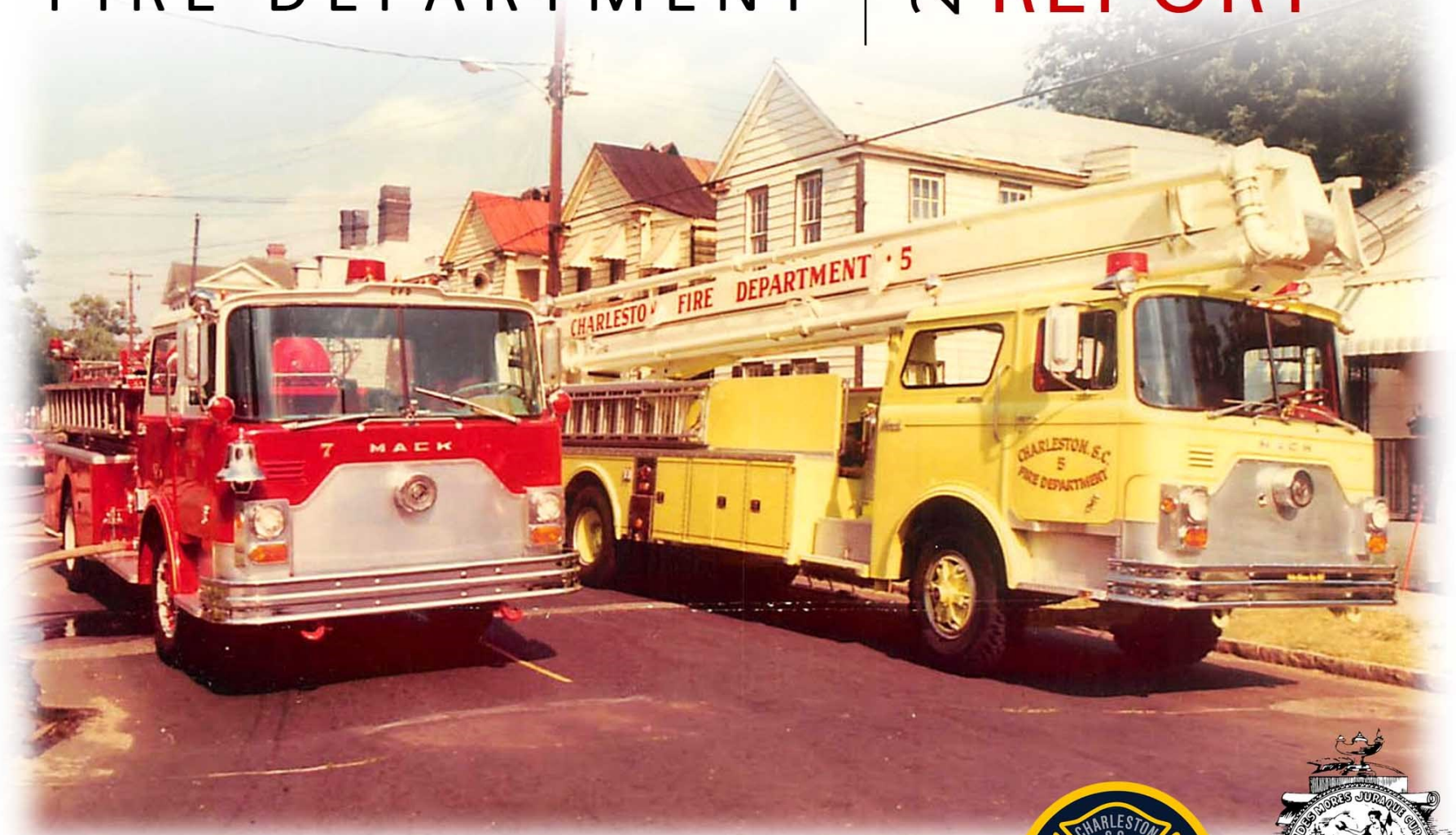
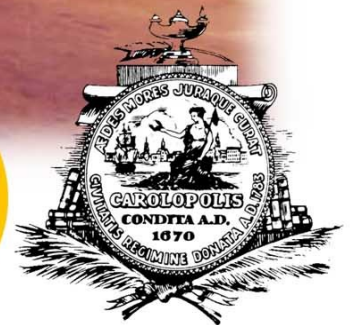


CHARLESTON FIRE DEPARTMENT

2017 ANNUAL
REPORT



135 Years of Service



City of Charleston Mission Statement

To preserve and enhance the quality of life of the citizens
of the City of Charleston.

Values

Citizens

We value our diversity and are committed to treating every
resident with respect, honesty and courtesy.

Public Safety

We value every citizen's safety and understand that safe, public
spaces and neighborhoods are essential to our quality of life.

Quality Services

We value providing high quality municipal services at the lowest
possible cost to our residents.

Physical Place

We value our unique natural resources, our man-made
environment, public realm and neighborhoods, and we understand
how our physical place affects each resident's quality of life. We
will work with others to increase the sustainability of our physical place.

Regional Partnerships

We value working with other government entities within our region
to sustain and improve the quality of life for all citizens.

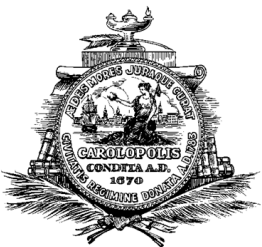
Elected Officials of the City of Charleston



The Honorable Mayor John J. Tecklenburg seated at desk.

**Council members seated from left to right: Robert M. Mitchell - District 4, Carol A. Jackson - District 12,
F. Gary White, Jr. - District 1, and Marvin D. Wagner - District 5**

**Council members standing from left to right: A. Peter Shahid, Jr. - District 9, William Dudley Gregorie - District 6,
Michael S. Seekings - District 8, Kevin Shealy - District 2, Harry J. Griffin - District 10,
William A. Moody, Jr. - District 11, James Lewis, Jr. - District 3 / Mayor Pro-Tem, and Perry K. Waring - District 7**



Letter from the Interim Fire Chief

The Charleston Fire Department (CFD) has a long and proud tradition of service to the community. It gives me great pride to present the 2017 Charleston Fire Department Annual Report on behalf of the 355 dedicated and professional men and women who deliver that service. This report will provide a snapshot of the deep commitment each and every member of the CFD demonstrates every hour of the day to fulfilling the mission of protecting the residents and visitors to our historic, growing and enchanting city.

The department continues to progress and improve its reliability through the various elements found in three tools: our stakeholder sanctioned strategic plan, CFAI accreditation criteria and ISO Class 1 requirements. The 2017 achievements outlined in this report illustrate how the department continues to build on the success of each previous year. Remaining operationally ready at all times, ensuring we use our resources efficiently and striving for perfection in all areas continue to be our guiding principles.

For 135 years, the Charleston Fire Department has been poised to render aid of all types at a moment's notice. As the department enters its 136th year, this report proudly reinforces that the men and women of the department stand ready around the clock and calendar to perform our most important mission, helping others.



John B. Tippet, Jr.
Interim Fire Chief



**Interim Fire Chief
John B. Tippet, Jr.**

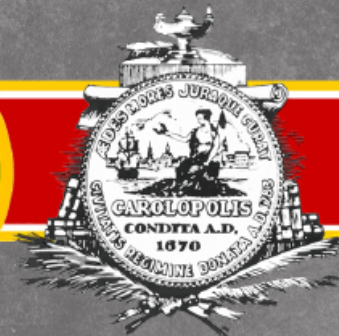


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CHARLESTON

FIRE DEPARTMENT



VISION

As the Charleston Fire Department strives to maintain a reputation of exceptional service delivery, it is our vision that, by 2021, we shall be widely known for Service, Commitment, Community, Integrity and Professionalism in the provision of world-class service during a time of transition and transformation.

Charleston Fire Department will enhance workforce development and realize greater stakeholder satisfaction through ever-improving and transparent communications practices.

From industry best practices, we seek to implement cutting-edge training that supports an enhanced emergency response program for the community.

Delivery of a comprehensive community risk reduction program and enriched public outreach will further solidify our strong commitment to the community. Citizens and visitors alike will have a protected place to live and work as a result of our department's highly-trained and appropriately equipped personnel serving from safe and well distributed facilities.

By exceeding the needs and expectations of our stakeholders, delivering our mission, living our values, and accomplishing our goals, we shall bring this vision to fruition.

GOALS

Emergency Response
Program

Workforce
Development

Resource Allocation
Plan

Community
Risk Reduction

Training

Communications

Public Outreach

MISSION

The Charleston Fire Department protects and serves our community through professional delivery of prevention, outreach, and emergency response services.

VALUES

Service - Provide safe, timely, and efficient response to our community.

Commitment - Duty and responsibility to our community and members of the organization.

Community - Dedicated to involving and including our citizens.

Integrity - Being honest, respectful and loyal to our community and peers.

Professionalism - Achieve excellence through progressive and courteous service.

Department Historical Overview

1784 - Hand in Hand Fire Company was organized. The company consisted of a bucket brigade

1801 - Charleston Fire Company of Axemen formed, purchasing the first hand engine company

1816 - Eagle Fire Company

1819 - Vigilant Fire Company

1826 - Phoenix and Charleston Fire Companies

1829 - Aetna Fire Company

1838 - German Fire Company

1839 - Marion Fire Company

1840 - Palmetto Fire Company

1842 - Hope Fire Company

1849 - Washington Fire Company

1861 - First steam fire engine purchased by the Charleston Fire Company of Axemen

1861 - Most devastating firestorm in city's history. Caused \$7,000,000 in damage (Equal to \$182,010,697 in 2015)

1882 - Mayor William A. Courtenay organized the paid CFD and disbanded the volunteers.

1905 - First automobile purchased to replace the fire chief's horse and buggy

1910 - First motorized fire engine purchased

1974 - Fire department switched from a 24 hours on duty/24 hours off duty work schedule to a 24 on/48 off work schedule

1989 - Hurricane Hugo devastated the City of Charleston

1991 - Albright & Wilson Americas Inc. chemical plant explosion. Resulted in the formation of the CFD Hazardous Materials Response Team

2007 - Sofa Superstore Fire. Resulted in the deaths of nine Charleston Firefighters and led to sweeping changes for the department.

2010— The Fire Marshal Division was reinstated as a result of the Sofa Superstore Fire

2015 - CFD receives a Class 1 Public Protection Class (PPC) rating in May, and became an internationally accredited fire department in August

2017 - CFD placed order for first ever Heavy Rescue apparatus to be delivered mid to late 2018.

Charleston Fire Chiefs

Frank L. O'Neill (1882-1894)

O. G. Marjenhoff (1894-1906)

Louis Behrens (1907-1932)

John H. Wohlers (1933-1942)

George W. Stout (1942-1943)

Norman G. Olsen (1943-1957)

Fred Shokes (1958-1967)

Wilmot E. Guthke (1967-1992)

Russell B. Thomas, Jr. (1992-2008)

Ronald Classen (Interim 2008)

Thomas Carr (2008-2012)

Franklin Finley (Interim 2012)

Karen E. Brack (2012-2017)

John Tippet (Interim 2017)

Fire Department Highlights 2017

- The Charleston Fire Department (CFD) celebrated its 135th year of providing service to the City of Charleston.
- The CFD held a memorial service for the 10th Anniversary of the Sofa Super Store Fire.
- The CFD minted a challenge coin to commemorate the department's 135th anniversary & 10th anniversary of the Sofa Super Store Fire.
- Maintained accredited status from the Center for Public Safety Excellence by receiving approval of our 2nd Annual Compliance Report.
- Completed and published the CFD's 2nd Annual Report for the 2016 calendar year.
- The CFD placed Tender 101 in service with two personnel at temporary Station location on Cainhoy Road.
- The CFD equipped all engine, ladder, and squad companies with Naloxone (NARCAN) to treat patients on emergency medical incidents experiencing opioid related overdoses.
- Placed Epinephrine Anaphylaxis kits in service on all frontline apparatus.
- Placed Beta Agonist medication and supplies in service on all frontline apparatus.
- The CFD received Port Security grant to purchase ChemPro 100I (Chemical identifier) and fifteen (15) SPRDs (personal radiation detectors).
- Twenty-eight (28) members of the HAZMAT Team attended Clandestine Laboratory Technician Training.
- The CFD hosted an eighty (80) hour HAZMAT Technician course delivered by the IAFF. Ten (10) CFD members received training. Ten (10) members from other agencies also attended this training course.
- The HAZMAT team delivered training to all operational personnel for Incident Response to Terrorist Bombings (IRTB).
- Technical Rescue Team successfully completed annual Operational Readiness Exercise, maintaining deployable status with the South Carolina Urban Search and Rescue Task Force Program for the third straight year.
- Technical Rescue Team staffed Urban Search & Rescue Squads during Hurricane Irma.
- Technical Rescue Team provided support for memorial events following the Mother Emanuel AME church shootings.
- Marine 101 became certified to conduct helicopter hoist operations with the United States Coast Guard.

Fire Department Highlights 2017 (Continued)

- The CFD fully implemented the use of Kronos Telestaff to manage daily staffing levels.
- Sixty (60) members of the CFD completed a Wildland Urban Interface Class.
- The Honor Guard participated in twenty-three (23) events in 2017.
- All three (3) shift Safety Officer deputies became pro-board certified as Incident Safety Officers and Health & Safety Officers.
- Four (4) Fire Inspector positions were converted to Assistant Fire Marshal positions.
- The Fire Marshal Division was moved into the PORS retirement system with the state.
- Implemented NFPA compliant color coding system for hydrants on the peninsula.
- A volunteer photographer/media specialist was added to the Fire Marshal Division in mid 2017.
- Knox Key secure devices placed on all apparatus.
- Increased the number of certified car seat technicians.
- Implemented our first college internship program within the Fire Marshal Division.
- Conducted water survival training for entire sworn department.
- Recorded 7,527 hours of medical training in Target Solutions.
- Painted and up fitted two (2) reserve engines to go into service as Engine 114 and 121 in mid 2018.
- Placed into service new apparatus replacements for Ladder 101, Engine 118, and Engine 119.
- Acquired four (4) Jon boats, motors, and trailers to be used for water rescue in flood prone areas prior to Hurricane Irma making landfall.
- Provided all personnel with Boonie Hats to provide additional protection from the sun.
- Re-convened the CFD's Recruitment Committee.
- Launched an after-hours fitness program for non-sworn staff members.

Budget & Finance

2017 Approved Fire Department Budget

Fire Division : \$ 29,427,457

Fire Training Division: \$ 1,257,962

Fire Marshal Division: \$ 989,943

Total Fire Department Budget: \$ 31,675,362

*Note: Apparatus purchases are not included.

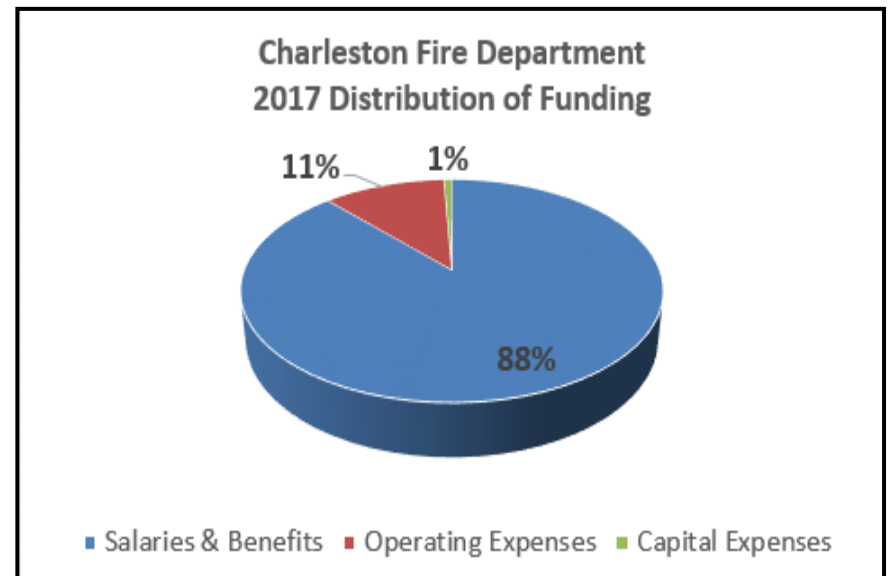
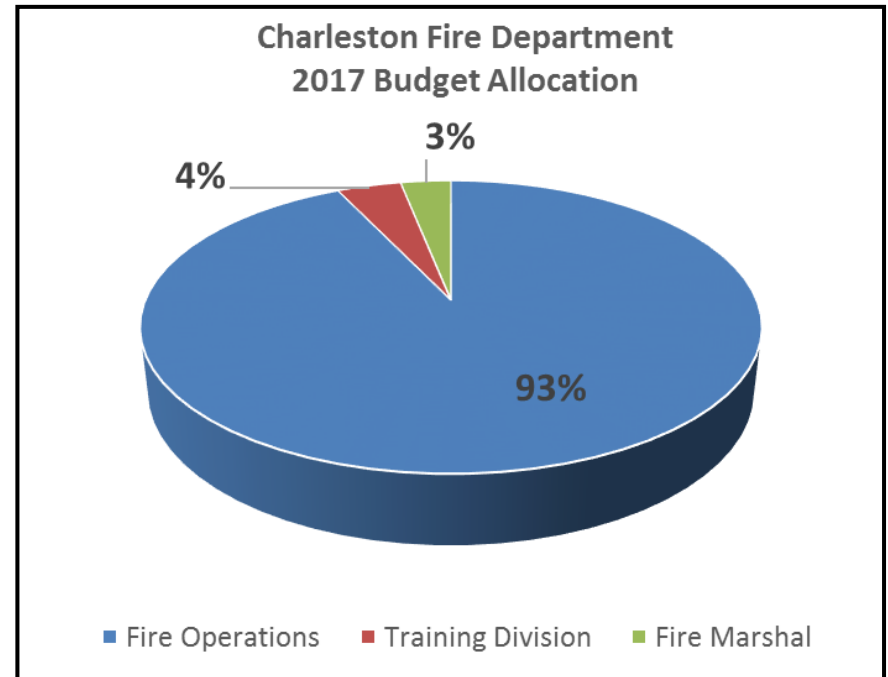
Authorized Full-time Employees (FTEs)

Uniformed/Sworn Firefighters: 331

Civilians/Non-sworn: 24.5



Engine 116 conducting pump operations training evolution.

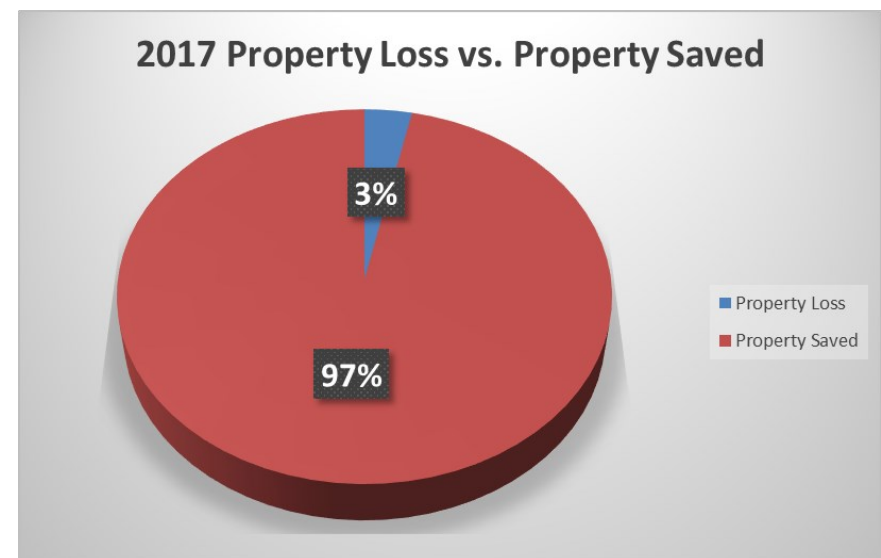
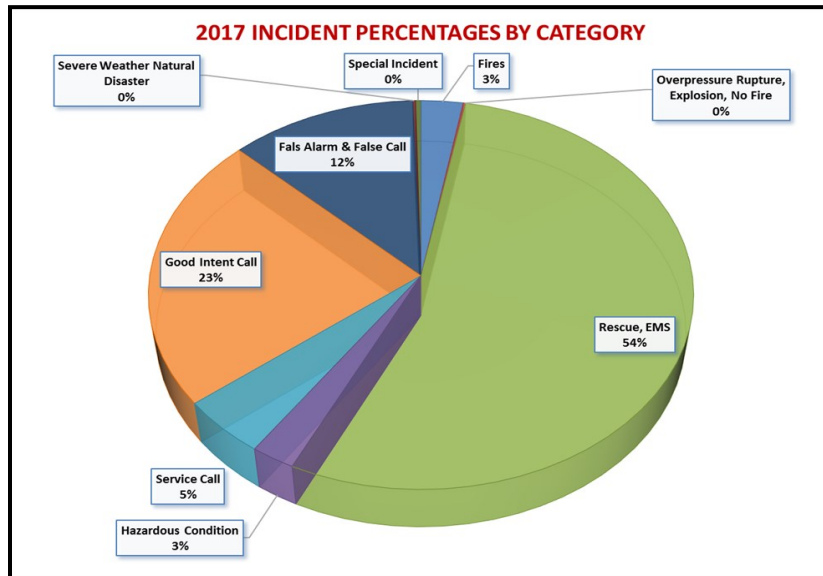
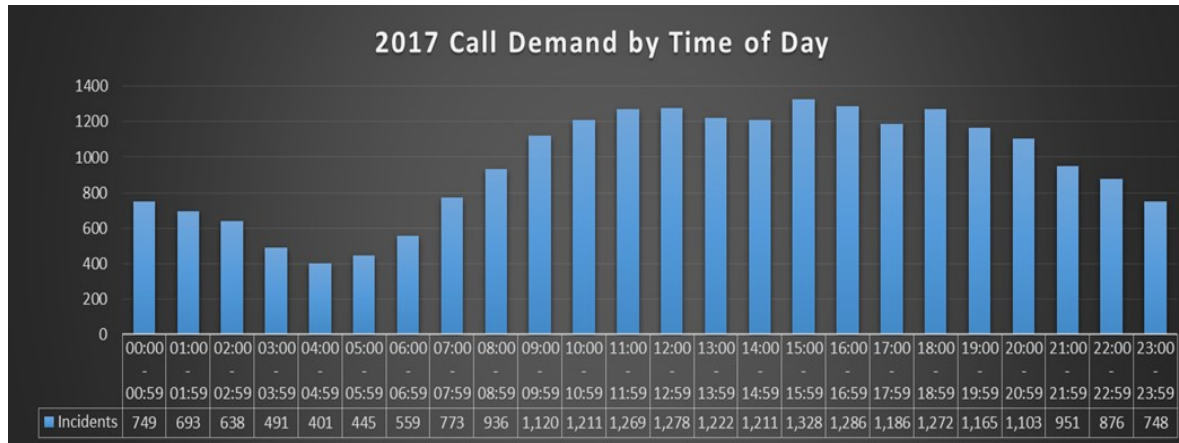


2017 Incident Responses / Demand for Services

The Charleston Fire Department responded to 22,978 calls for service in 2017.

Rescue and Emergency Medical Service (EMS) incidents accounted for 54.23% of the call volume.

General Categories of Incident Types	Number of Incidents
Fires	629
Overpressure, Rupture, No Fire	36
Rescue, EMS	12,461
Hazardous Condition	552
Service Call	1,099
Good Intent Call	5,278
False Alarm & False Call	2,801
Severe Weather, Natural Disaster	41
Special Incident	81
Total Incidents	22,978



2017 Incident Response Performance

Response time performance is measured in accordance with the requirements of the Center for Public Safety Excellence for the purpose of ensuring timely service delivery and maintaining accreditation. Response measurements are taken in each of the following areas and measured against the benchmark:

Benchmark: nationally considered best practice used to compare actual performance. The benchmark is a goal the department is trying to meet or improve upon.

Call Process: amount of time it takes for the dispatch center to answer the 911 call and dispatch the appropriate resources.

Turnout Time: amount of time it takes for personnel and apparatus to get en route to the call once dispatched.

Travel Time First Unit: amount of time it takes for the first unit to drive to the scene.

First Unit Arrival: amount of time it takes for the first unit to arrive on scene from the time the call was received.

ERF (Effective Response Force): time it takes for a predetermined sufficient amount of personnel to arrive on scene to mitigate the incident effectively.

Due to the low number of structure fires occurring in rural areas (less than 10) within the city limits, data was insufficient for calculating response time elements for 90% performance.

Urban: land area with a population density of at least 1,000 people or more per square mile.

Moderate Risk Structure Fires: fires occurring in single family residential buildings.

High Risk Structure Fires: fires occurring in multi-family residential buildings, commercial businesses, manufacturing facilities, schools, churches, etc.

2017 Urban Moderate Risk Structure Fires 90% Performance						
	Call Processing	Turnout Time	Travel Time 1st Unit	Travel Time ERF	Total Response Time 1st Unit	Total Response Time ERF
Benchmark	0:01:00	0:01:20	0:05:00	0:10:00	0:08:30	0:11:30
Baseline	0:01:20	0:01:00	0:05:31	0:08:47	0:07:11	0:11:47
Total number of moderate risk structure fires analyzed 51.						

2017 Urban High Risk Structure Fires 90% Performance						
	Call Processing	Turnout Time	Travel Time 1st Unit	Travel Time ERF	Total Response Time 1st Unit	Total Response Time ERF
Benchmark	0:01:00	0:01:20	0:05:00	0:10:00	0:08:30	0:14:30
Baseline	0:01:36	0:01:06	0:03:59	0:07:16	0:06:27	0:10:31
Total number of moderate risk structure fires analyzed 29.						

2017 Busiest Companies	
Company	Responses
Battalion 103	1,972
Engine 106	2,242
Ladder 104	2,011
Squad 101	2,641

(All Risks) 2017 EMS Incidents 90% Performance			
Alarm Handling	Turnout	Travel	Total Response Time
0:01:44	0:01:36	0:06:40	0:08:49
n=9920	n=9920	n=9676	n=9676
*n= number of incidents analyzed for calculation			

Charleston Fire Department Organizational Chart



Charleston Fire Department Command Staff



Interim Fire Chief
John B. Tippet, Jr.

The Command Staff is focused on carrying out the mission, vision, values of the agency by providing oversight and management of the department on a day-to-day basis acting as representatives of the fire chief. They are responsible for the development of standard operating procedures, developing a yearly work plan, ensuring that personnel are provided with proper tools and equipment to perform their job, and to act as advisors to incident commanders during emergency situations. The Command Staff helps to maintain a proper span of control to ensure the organization's efficiency.



CFD crews operating at the EME Apartment Fire on James Island in June 2017.

Position
Currently
Vacant

Deputy Chief of Operations

Position
Currently
Vacant

Deputy Chief of Training and Technical Services



Chief Fire Marshal
Mike Julazadeh



Administrative Services Manager
Cassandra McSwain

Charleston Fire Department Administrative Division



**Accreditation Manager
Battalion Chief
Michael Hanuscin**



**Fire Department
Secretary
Jackie Millett**



**Finance
Coordinator
Rachel Kohn**



**Human Resources
Coordinator
BJ Danner**



**Assistant
Administrative Services
Manager
Kelly Klasnick**

**Administrative
Specialist
Fire Marshal
Division
Sybil
Richardson**



The Administrative Division is overseen by the fire chief and is managed by the Administrative Services Manager. The Administrative Division provides oversight of the department's day-to-day operations including: implementation of written directives, accreditation, human resource functions, recruitment, retention, budget, finance, and purchasing.

**Administrative
Specialist
Fire Marshal
Division
Debbie Brown**



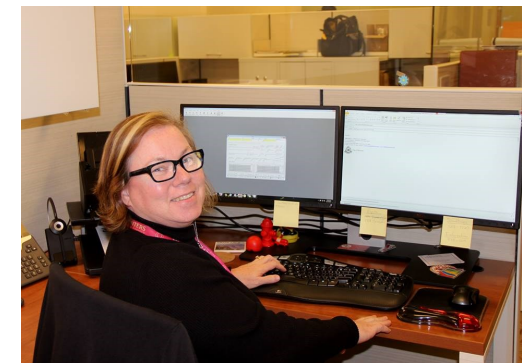
**Captain Kevin Weeks recruiting at
Trident Technical College Job Fair**



**Administrative
Specialist
Training Division
Ashley Blake**



**Administrative
Specialist
Catoncea Brunson**



**Debbie Brown working on data entry at the
Fire Marshal's Division**

Operations Division

The primary focus of the Operations Division is to protect the lives and property of the citizens and visitors of Charleston. This focus is maintained through a commitment to the health, wellness, safety, and operational readiness of the division's personnel. The Operations Division is led by the Deputy Chief of Operations and two(2) assistant chiefs. The deputy chief ensures 24/7 operational readiness and carries out the directives of the fire chief. One assistant chief provides day-to-day coordination of the three (3) shifts, one assistant chief oversees the special operations section. The department's Health & Safety Officer also reports to the Deputy Chief of Operations. Field operations are broken down into four (4) geographic battalions. Each battalion contains three (3) to seven (7) individual companies that staff strategically located fire stations. The battalions are supervised by twelve (12) battalion chiefs (four [4] per shift, one of which serves as the shift commander) who command three (3) shifts of captains, engineers, assistant engineers, and firefighters. Personnel are assigned to one (1) of three (3) working shifts (A,B,C). The shift schedule is a combination 24 hours on duty and 48 hours off duty. The department maintains four (4) special operations teams for technically challenging incident response: HAZMAT, Marine, Technical Rescue and Wildland Urban Interface. Specialty areas are explained in the subsequent pages.

Assistant Fire Chiefs



**Assistant Chief of
Operations
Joseph Roberts**



**Assistant Chief of
Special Operations
Jason Krusen**



**Crews operating at structure fire
located at 1410 Sherwood Drive.**

Shift Commanders



**A-Shift
Battalion 103
Battalion Chief
Richard Williams**



**B-Shift
Battalion 103
Battalion Chief
Forrest Cockcroft**



**C-Shift
Battalion 103
Battalion Chief
William Perez**



**Land Based Crews and Fire Boat
working multiple vessel fire at the
Ashley Marina.**





Central Station: Engine 102 & 103
262 & 264 Meeting Street



Battalion 103 & Engine 106
5 Cannon Street



Engine 108
370 Huger Street



Headquarters/ Station 9
Engine 109 & HAZMAT 101
1451 King Street Extension



Ladder 104 & Engine 115
162 Coming Street



Engine 107
1173 Fort Johnson Road



Tower 105 & Engine 110
1 Nicholson Drive

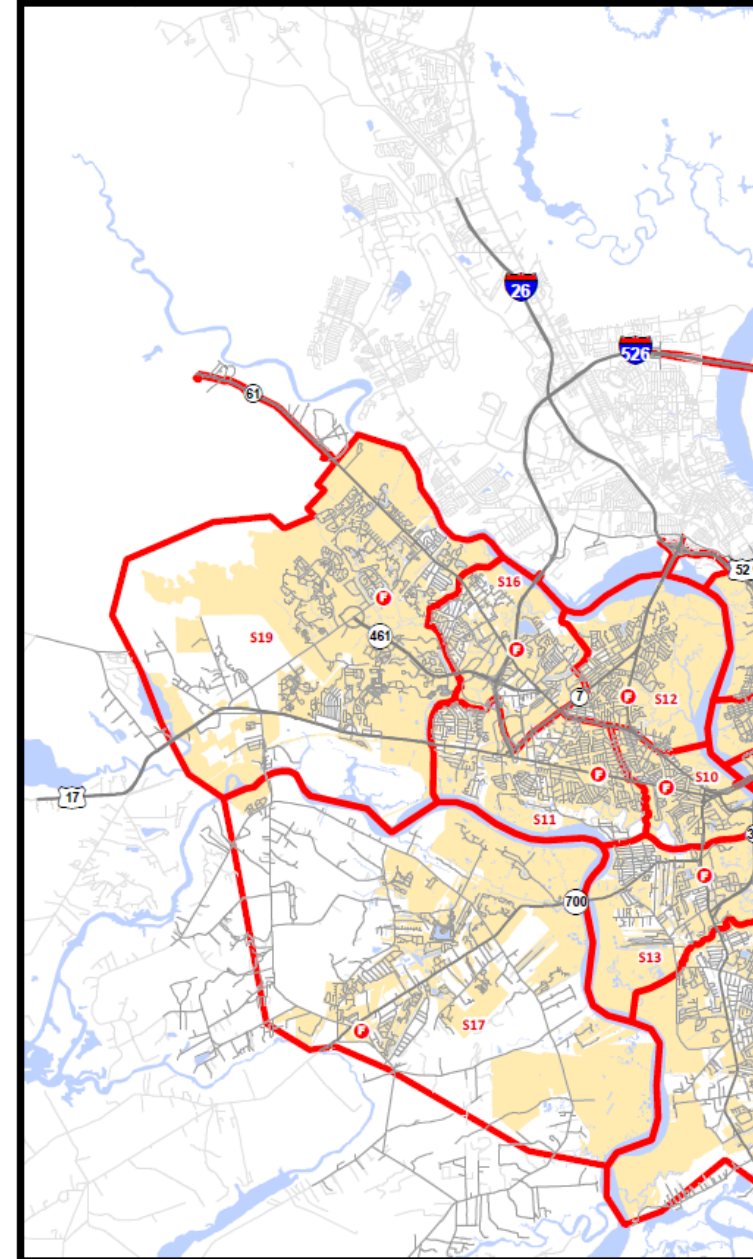


Battalion 105 & Engine 113
358 Folly Road

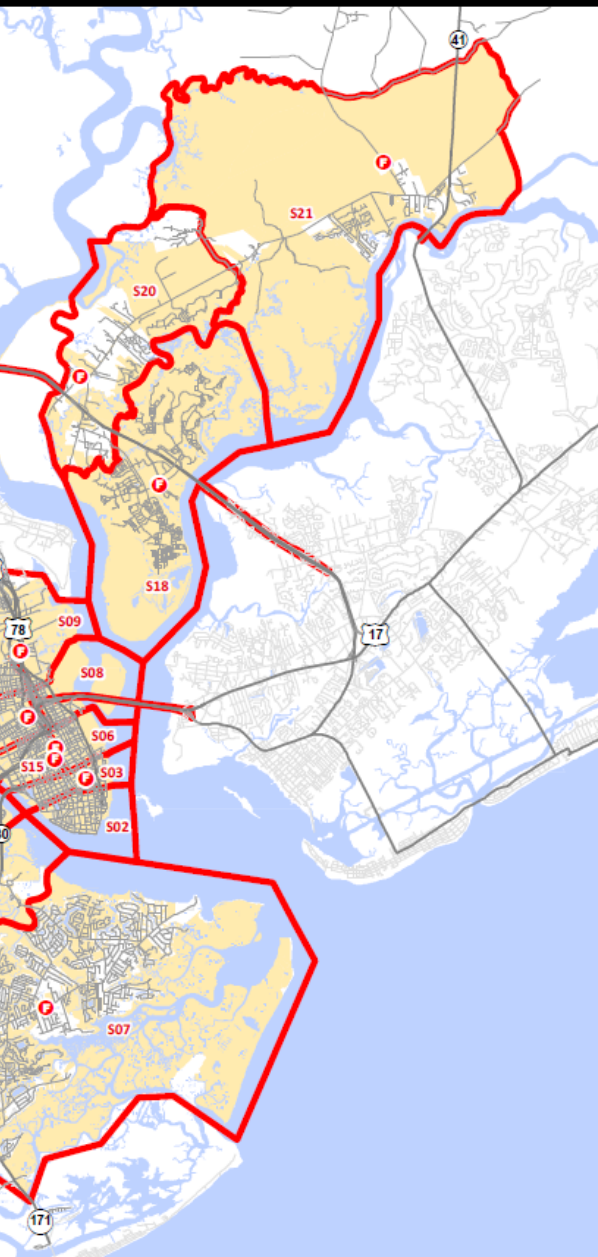


Engine 117 & Brush 102
1830 Bohicket Road

Operations Division: Map of



Fire Station Locations & Districts



Fire Response Areas

City of Charleston

- City Fire Stations
- Highways
- Streets
- Charleston County streets
- Fire Response Areas
- Water
- City of Charleston

1 inch = 15,000 feet



Important Disclaimer Notice

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Map created 2/1/2018



City of Charleston
Department of Information Technology
GIS Division
2 George St, Suite 2800
Charleston, SC 29401
www.charleston-sc.gov

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Battalion 104 & Engine 111
1517 Savannah Hwy.



Engine 112 & Air 101
1352 Old Towne Road



Engine 116
81 Ashley Hall Plantation Road



Engine 119 & Tower 102
1985 Bees Ferry Road



Battalion 106, Ladder 101,
Engine 118
235 Seven Farms Drive



Engine 120 & Brush 101
1006 Pinefield Road



Tender 101
Temporary Fire Station 21
1055 Cainhoy Road

Operations Division: Emergency Medical Response/Fire Suppression

The CFD provides fire suppression and emergency medical response using a myriad of equipment and fire apparatus. Equipment and apparatus are chosen based on the type of risk identified in the City of Charleston's jurisdictional boundaries. All engine and ladder companies are equipped to perform fire suppression tactics and provide emergency medical care at the basic life support level of service. The CFD works cooperatively with Charleston and Berkeley County Emergency Medical Services to provide EMS care.



Light & Air Truck: Vehicle equipped with onboard air compressor for filling cylinders on scene, generator and light tower, along with on scene rehabilitation equipment.



Fire Pumper or Engine: Carries 750 gallons of water and is able to pump 1,500 gallons per minute when supplied from a fire hydrant or drafting. Carries a variety of equipment.



Water Tender: Used to transport water for fire fighting in areas that do not have hydrants. Carries 2,000 gallons of water and is able to quickly unload into a portable drop tank.



Tractor Drawn Aerial Ladder Truck: Capable of reaching the seventh floor of a building, provides steering capabilities over the rear wheels of the trailer for increased maneuverability. Typically referred to as a tillered ladder.



Tower Ladder: This apparatus is equipped with a platform at the end of its ladder to transport personnel and victims. Carries a variety of equipment to perform forcible entry, rescue/extrication, and perform fire suppression tasks.



Command Vehicle: Transports the battalion chief to the scene of emergencies and provides equipment necessary to command the incident scene from start to finish.

Operations Division: Safety Section

The Safety Section ensures that the Charleston Fire Department meets or exceeds industry best practices for providing a safe working environment for employees. The section is responsible for promoting safety and reducing employee exposure to needless risk, tracking all personnel injuries and vehicle collisions, coordinating annual physicals for firefighters, and performing safety inspections of equipment, vehicles, and fixed facilities.

The Health and Safety Officer is responsible for this section and reports to the Deputy Chief of Operations. He is assisted by three (3) Deputy Safety Officers, one (1) per shift and two (2) assistant safety officers. All four members of the Safety Section are certified safety officers through the Fire Department Safety Officer's Association (FDSOA). Battalion Chief Kenneth Jenkins leads the Safety Section.



Health & Safety Officer
Battalion Chief
Kenneth Jenkins



Deputy Safety Officer A-shift

Captain Alan King

Deputy Safety Officer B-shift

Captain Justin L. Williams

Deputy Safety Officer C-shift

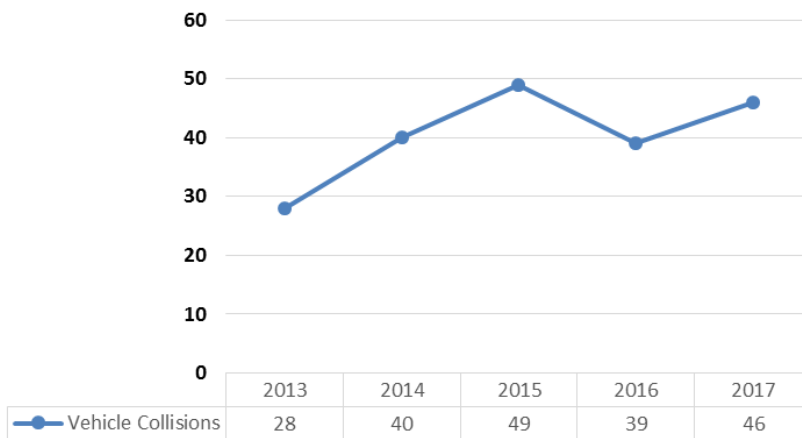
Captain Donovan Richardson

Assistant Safety Officers

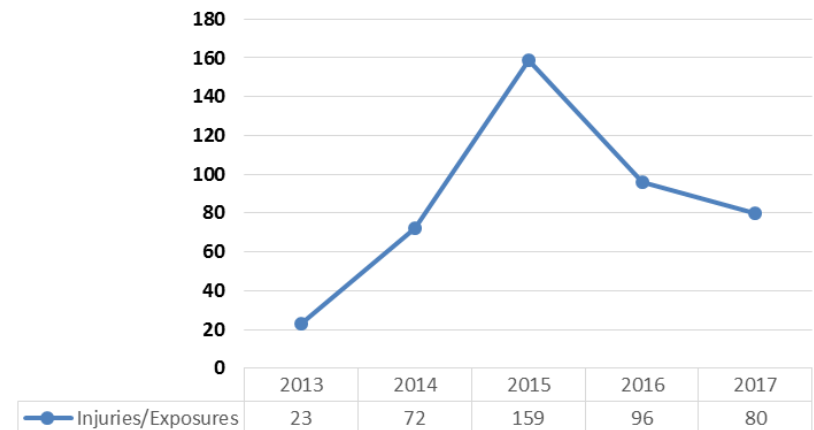
Captain Daniel Chavous

Captain Kevin Weeks

Vehicle Collisions 5 Year Comparison



Injuries/Exposures 5 Year Comparison



Operations Division: Special Operations - HAZMAT Team



**HAZMAT
Team Commander
Captain
Herbert Scott**

**Deputy Commander
Captain Matthew Fogliano**

**HAZMAT Safety Officer
Captain Kevin Weeks**

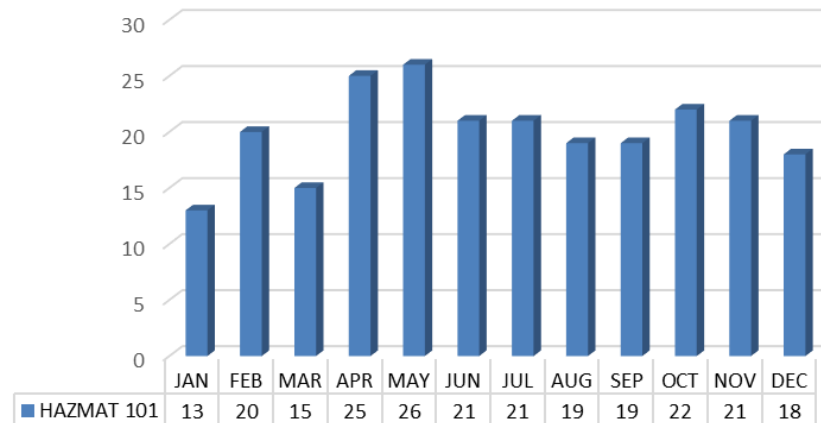
**HAZMAT Training Officer
Engineer Jason Dunigan**

The Charleston Fire Department operates a FEMA Type II Hazardous Materials Response Team with 34 personnel. The Team is comprised of personnel distributed throughout the department's three shifts. A four-person crew from Engine 109 cross staffs the response vehicle, HAZMAT 101. Cross staffing occurs when crews staff a primary response vehicle and switch over to staff a specialized vehicle when it is needed for specific emergency incidents. Personnel on the team are certified HAZMAT Technicians, Clandestine Lab Technicians, and Weapons of Mass Destruction (WMD) Technicians. Members of the team also serve on the Regional Response Team for Hazardous Materials Response and WMD incidents. The team is subject to callout on a regional and statewide basis.

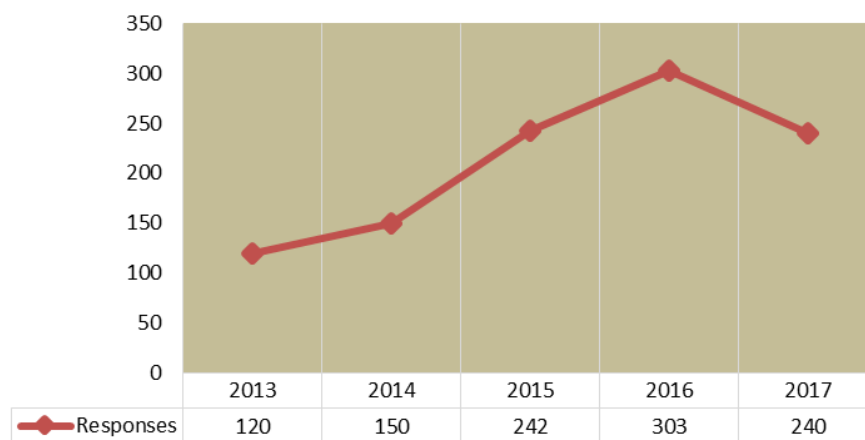
The team is currently led by Captain Herbert Scott, who reports to the Assistant Chief of Special Operations. The HAZMAT Team Commander is assisted by a Deputy Commander, HAZMAT Safety Officer, and HAZMAT Training Officer.

In 2017 the HAZMAT Team responded to 240 calls for service.

2017 HAZMAT 101 Responses by Month



**HAZMAT 101 INCIDENT RESPONSE HISTORY
5 YEAR COMPARISON**

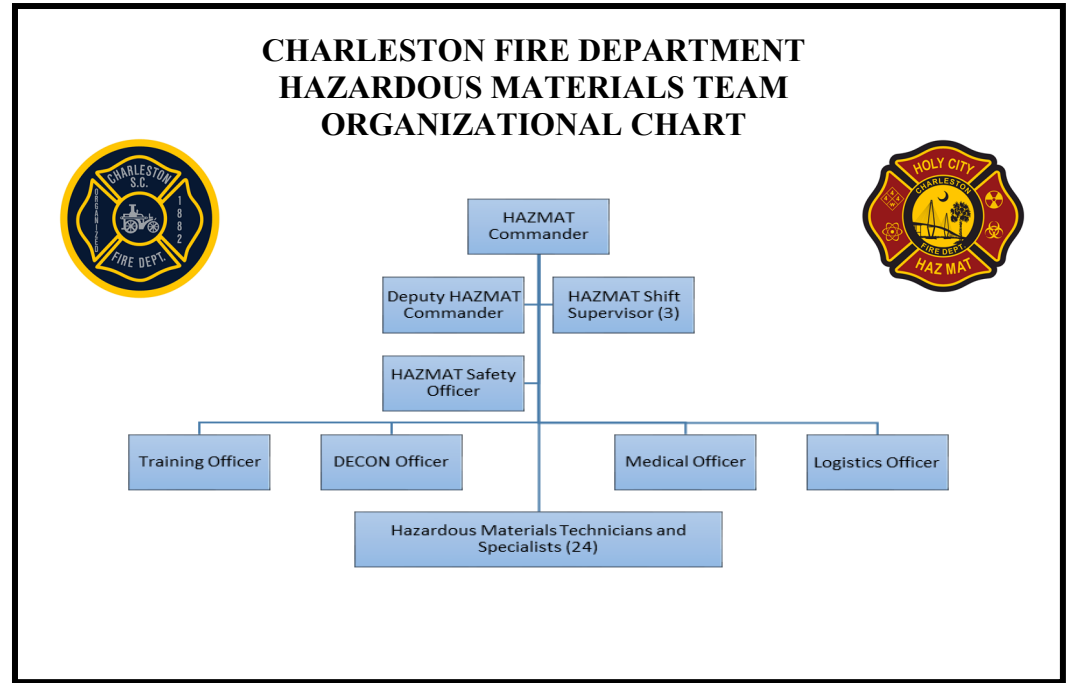




HAZMAT Team members attending training class for Preventive Radiological and Nuclear Detection sponsored by the Domestic Nuclear Detection Office.



HAZMAT 101 responded to an overturned DOT-406 tanker truck loaded with 8,500 gallons of gasoline. Crews were able to limit spillage of contents to 25 gallons. Products were off loaded before tanker truck was up righted.



Captain Fogliano operating controls during flaring of a damaged propane tank during training.



HAZMAT Team members attended two-day training class on how to handle propane cylinder leaks, which included product transfer and flaring from damaged containers.

Operations Division: Special Operations - Technical Rescue (TRT)/Urban Search & Rescue (USAR) Team

The Charleston Fire Department Technical Rescue Program/Team exists to provide emergency response to a wide variety of technical rescue possibilities within the City of Charleston's jurisdiction and the State of South Carolina. The team has the capability to mitigate the following types of incidents: high and low angle rope rescue, trench rescue, confined space rescue and standby, structural collapse, advanced vehicle extrication, machinery extrication, urban and rural land search, storm response, and support operations for large scale events.

Captain Anthony Morley leads the Technical Rescue/USAR Program and reports to the Assistant Chief of Special Operations. The USAR Team Commander is assisted by a Deputy Commander, USAR Safety Officer, and USAR Training Officer.



Members of the CFD TRT shore up a building on James Island after a car drove into it.



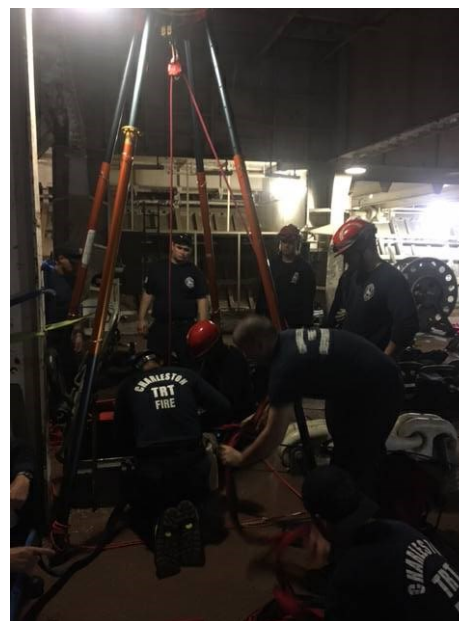
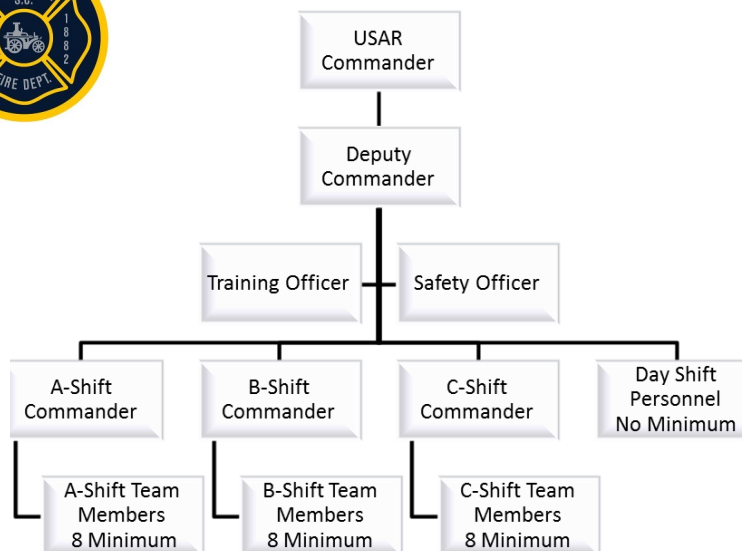
USAR Commander
Captain
Anthony Morley

Deputy Commander
Captain Tom Horn

USAR Safety Officer
Captain Jerry Warren

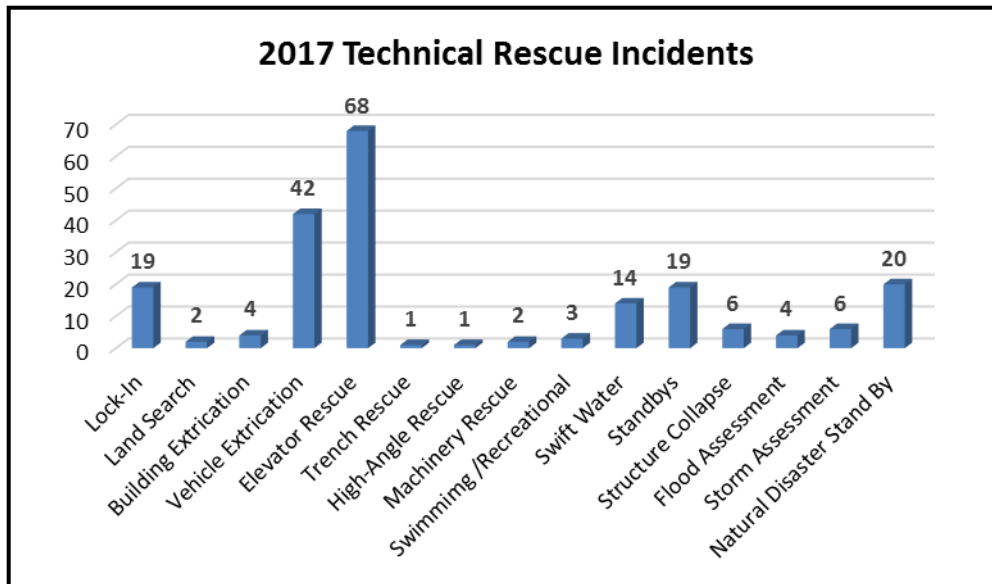
USAR Training Officer
Captain Matthew Thomson

Charleston Fire Department Technical Rescue/Urban Search & Rescue (USAR) Team Organizational Chart



Members participate in confined space rescue training aboard the USS Yorktown





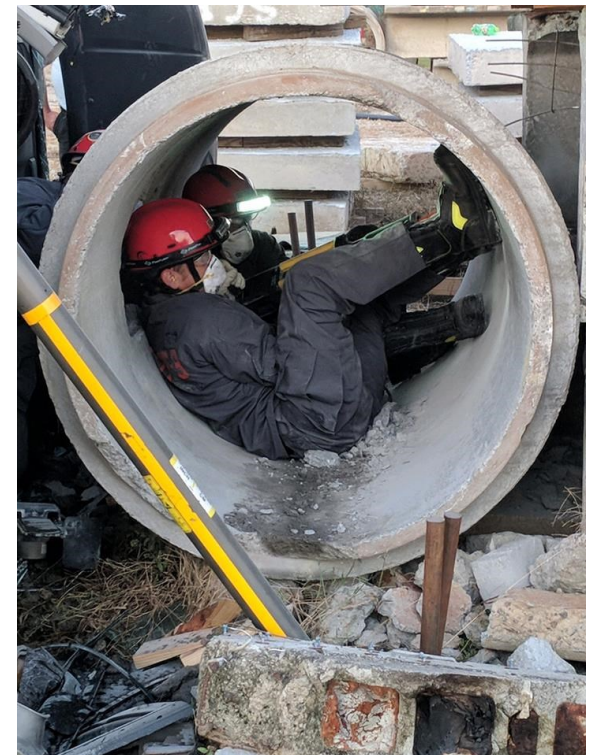
Above and Below: TRT Members participate in annual operational readiness exercise at the state fire academy.



TRT Members prepare to staff quick response units prior to Hurricane Irma impacting Charleston.



Members of the TRT and Marine team conducting training in the use of John Boats for use during floods for evacuating and rescuing trapped civilians.



Operations Division: Special Operations - Marine Team

The Charleston Fire Department Marine Team provides a professionally trained response team to maritime emergencies in the greater Charleston area. This includes, but is not limited to, shoreline, near shore and off shore areas of the Charleston Harbor.

The Louis Behrens named after the third chief of the fire department (call sign Marine 101), is a 36' Metal Craft Firestorm Fireboat. The vessel is equipped with a 3,000 GPM fire pump that was delivered to Charleston and placed in service late 2012. Marine 101 is crossed staffed by Engine Company 102 with a minimum crew of four trained maritime personnel.

The Marine Team is comprised of 26 members, 11 certified/qualified M101 pilots, 19 certified as USCG-OUPV licensed Captains. The Marine Team is led by Captain Rob Fulmer who reports to the Assistant Chief of Special Operations. Members of the Marine Team as well as other Charleston Fire Department personnel participate in the Charleston County Marine Incident Response Team (MIRT) and the Charleston Metro Marine Unit.



Marine 101 participated in National Safe Boater's Week

SEA TIME

The Marine Team spent a total of 1,500 hours underway in 2017, performing various missions that included: training, emergency response, and harbor safety

TRAINING

Each member of the Marine Team averaged 130 hours of marine training in 2017.

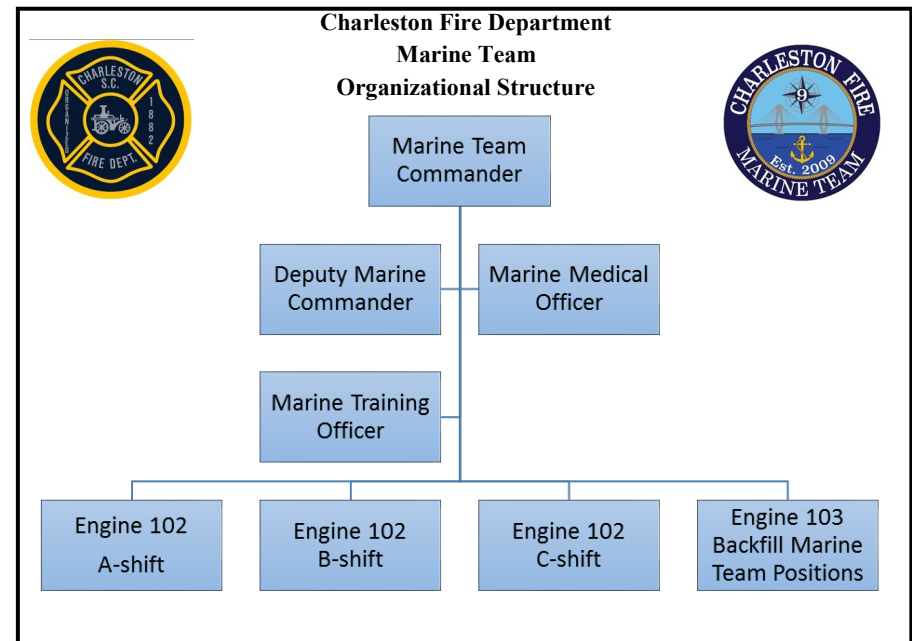


**Marine Commander
Captain Robert Fulmer**

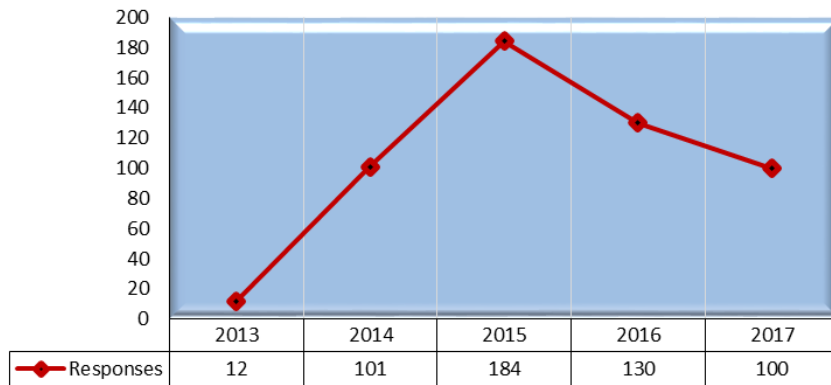
**Deputy Commander
Captain John Rogers**

**Marine Medical Officer
FF/PM Ryan Wood**

**Training Officer
Captain T.J. Axson**



MARINE 101 INCIDENT HISTORY 5 YEAR COMPARISON



Marine 101 with new paint livery in its lift at the Charleston Harbor Pilots.



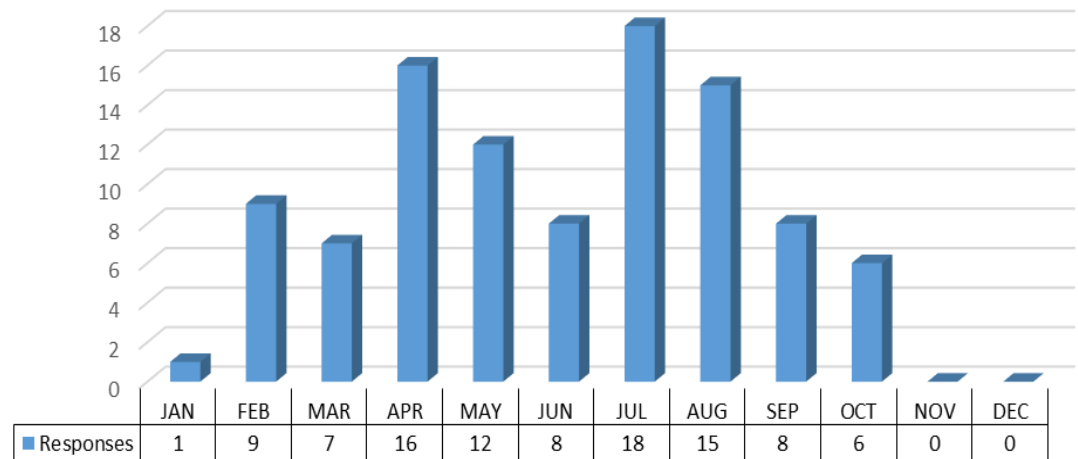
Members of Marine Division and Charleston Metro Marine Unit participated in joint training exercise.

All Risk Categories - 2017 Marine Incidents (90th Percentile Performance)

Alarm Handling	Turnout	Travel	Total Response Time (ERF)
0:19:42	0:03:17	1:14:43	1:25:46
n=100	n=97	n=59	n=59

* n = number of incidents used in calculation

2017 Marine 101 Responses by Month



* Note: Marine 101 was out of service during the months of November and December 2017 for a major haul out and overhaul.

Operations Division: Special Operations - Wildland Urban Interface Team

The Wildland Team exists to address the risk of fires occurring in areas of the city where developments encroach on forests. The team has the capability to provide for mitigation of the following types of incidents: Wildland fire extinguishment and containment, structural triage, and assistance to federal, state and local agencies. The team is developing a skill set and training responders in the department to be better prepared to operate in the Wildland Urban Interface (WUI) areas of the city as it continues to grow into the suburban areas.

The CFD Wildland Team has twelve (12) team members, five (5) of which have obtained US Forestry Service Red Card Certification. Calls will be responded to using on-duty personnel, and prescribed burns and management tasks will utilize off-duty personnel when available. There is some basic equipment and PPE that is located on Brush 101, Brush 102 and designated Wildland Stations 17, 18, 20 and 21. Station 21 currently houses Tender 101.

Currently the team is lead by Captain Zsolt Szoke of Station 18 located on Daniel Island.



Wildland Team members participated in training in Horry County



Wildland Urban Interface Commander
Captain Zsolt Szoke

Deputy Commander
Captain Chris Derrick

(All Risks) 2017 Wildland Incidents 90% Performance					
Alarm Processing	Turnout	Travel 1st	Travel 2nd	1st Unit(TRT)	ERF(TRT)
0:03:06	0:01:54	0:09:03	0:08:55	0:14:06	0:16:22
n=56	n=56	n=56	n=30	n=56	n=30
*n = number of incidents analyzed for calculation					



Members of the CFD Wildland Team attend training in the Francis Marion Forest.



Brush Truck 101 is one of two off road vehicles used to combat wildfires by the CFD.



Members practice emergency shelter deployment

Operations Division: Special Operations - Honor Guard

The Honor Guard is comprised of twenty-one (21) trained personnel that work together as a ceremonial unit and led by Captain David Griffin. Their primary role is to provide funeral honors for fallen emergency responders as well as stand guard at their calling hours. The Charleston Fire Department Honor Guard also serves as the “guardians of the colors” as they escort and display the national flag at ceremonial occasions including departmental graduations, departmental promotions, and community, statewide, and national events.

Members of the Honor Guard are required to attend training and ceremonies to remain active with the team. Each October, four (4) members travel to Emmitsburg, Maryland to participate in the National Fallen Firefighters Memorial Weekend at the National Fire Academy. They work in concert with other emergency service honor guards to honor fallen firefighters. The Honor Guard deploys approximately 20 -25 times per year.



Honor Guard Commander
Captain David Griffin

Deputy Commander
Captain Justin L. Williams



Members of the Honor Guard presenting the colors at the National Association of State Fire Marshals



Honor Guard presenting the colors at the 2017 CFD Awards Ceremony

Peer Fitness Training Program

In its continued effort to reduce on the job injuries and improve the health and wellness of its personnel, the Charleston Fire Department has adopted and implemented a Peer Fitness Training (PFT) Program. A team of personnel has been certified as peer fitness trainers to standards established in the Wellness Fitness Initiative (WFI). The WFI is a joint venture between the International Association of Fire Fighters (IAFF) and the International Association of Fire Chiefs (IAFC), in collaboration with the American Council of Exercise (ACE). The WFI seeks to promote wellness over time to maintain fit, healthy, and capable firefighters throughout their career and into retirement. The fire department’s Health and Wellness program works with the City of Charleston’s Wellness Coordinator.



Peer Fitness Team Leader
FF Joshua Turner



Members of the PFT program conducting physical fitness assessments of new recruits.

Training & Technical Services Division

The Training & Technical Services Division is an integral part of the CFD. The division is overseen by a Deputy Chief, assisted by Assistant Chief Christopher Vanhoy along with two (2) battalion chiefs. The division is responsible for the research, development, and delivery of all training to the fire department whether it is annual recertification, recruit or new technology training in the field of fire or EMS.

In addition, the division coordinates maintenance projects at the department's 19 worksites, new station construction, renovations of existing facilities, and up fitting of automotive apparatus. Our fleet team maintains and repairs the departments 22 front line response apparatus, reserve units, fire boat, as well as a fleet of emergency and non-emergency passenger vehicles.



PPE Maintenance



**Lead Mechanic Palmer working on
Tower 105's platform**



**Assistant Chief of
Training & Technical
Services
Christopher Vanhoy**



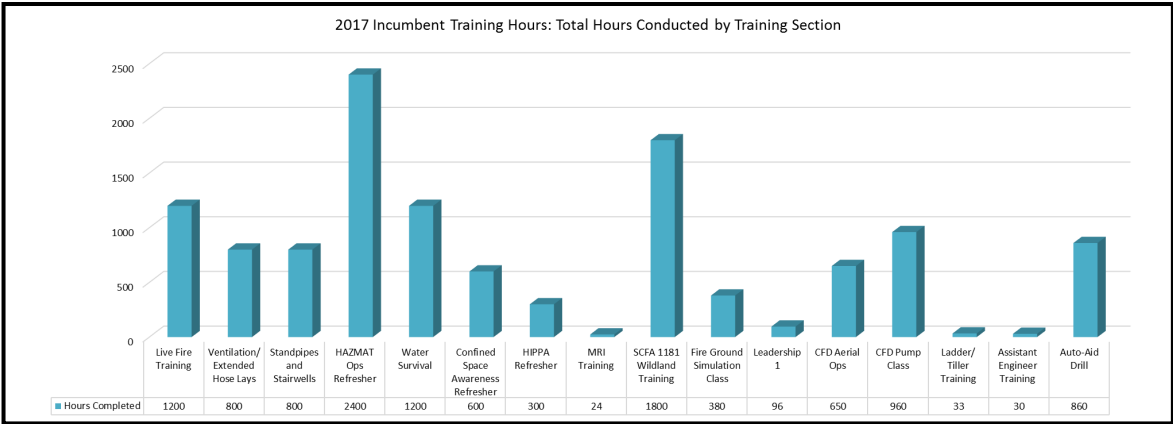
The CFD took delivery of two (2) new Pierce Pumper Engines in 2017 to replace Engines 118 and 119. Engine 118 is serving the residents of Daniel Island while Engine 119 is serving residents of West Ashley from Bees Ferry Road.

Training & Technical Services Division: Training Section

The Training Section supports the CFD in it’s mission of preserving life and property. They do this by ensuring a level of professionalism in everything they do. Training staff provides training, education, and personal development opportunities to all of our firefighters and officers. The Training Section is led by Training Director Robert Baldwin, who reports to the Deputy Chief of Training and Technical Services. The department has a total of thirty-eight (38) South Carolina Fire Academy Certified instructors in its ranks. Six (6) of the thirty-eight (38) are assigned to the Training Section. The remaining personnel are assigned to the Operations Division and provide support to the Training Section as adjunct instructors when not working their assigned shift.



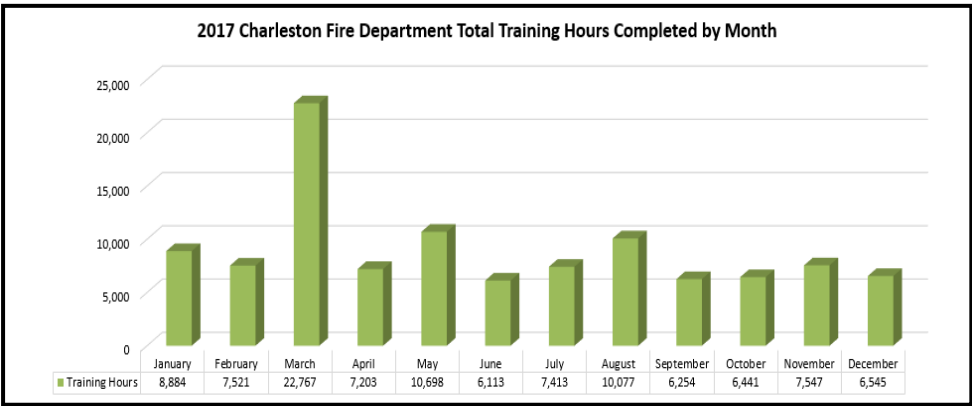
Structure fire scenario at Archer School.



Training Director
Battalion Chief
Robert Baldwin



Recruits learning the skills needed for conducting roof ventilation operations.



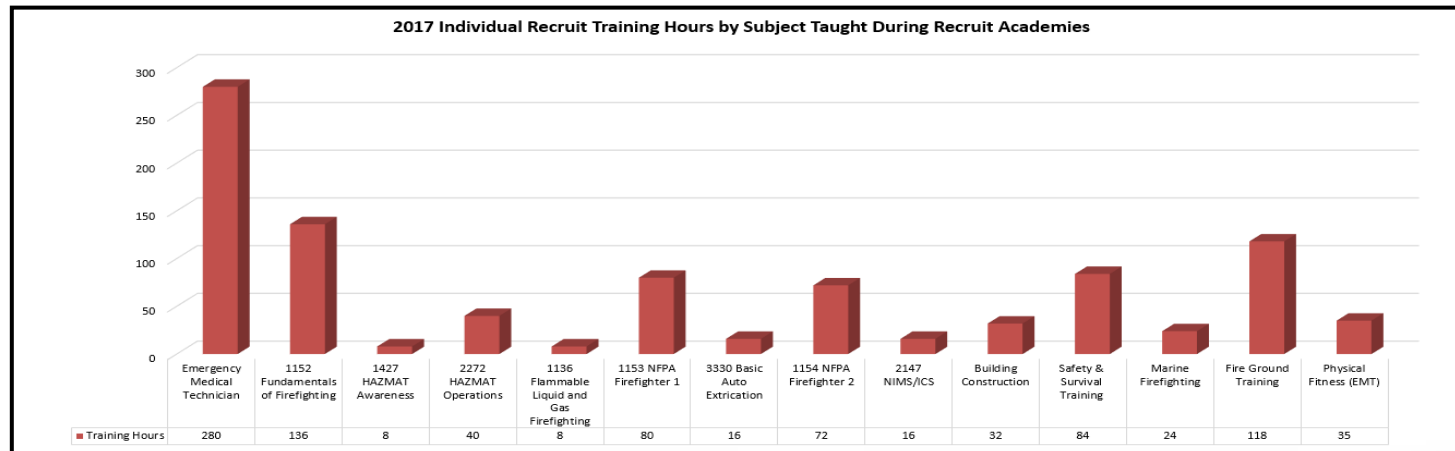
Live fire training being conducted with the propane prop at night.



Recruit Class 1701 at graduation with staff of Training Section.



Recruit Class 1702 at graduation with Interim Fire Chief John Tippet and Training Section Staff.



Recruits participating in bail-out training as part of Safety & Survival Training.



Incumbent water survival training.



Incumbents training on automobile extrication techniques.



Driver candidates train on drafting.

Training & Technical Services Division: Technical Services Section

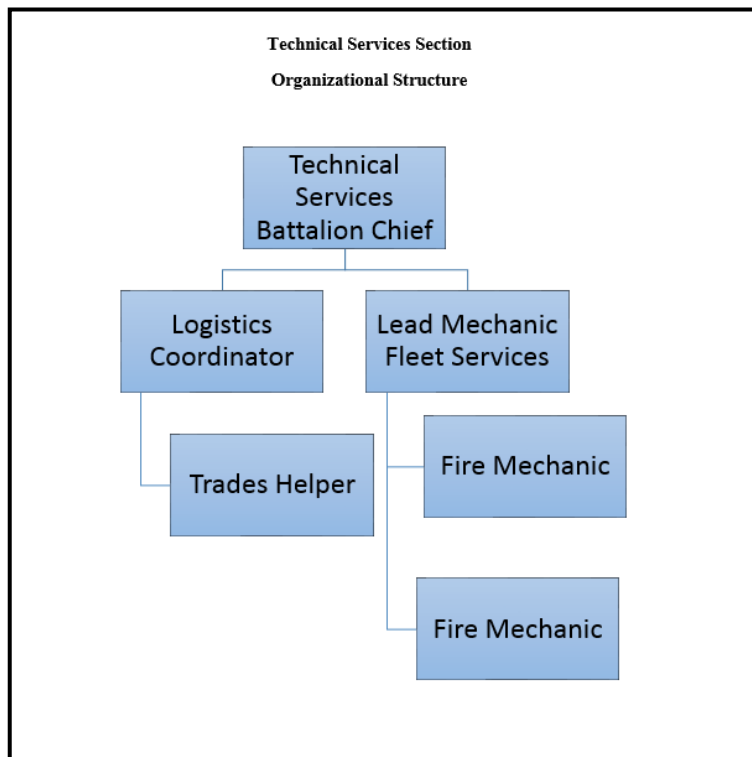
Technical Services oversees logistics, facility management and fleet maintenance. This division is currently led by Battalion Chief Greg Chesher who reports to the Deputy Chief of Training and Technical Services. He has direct oversight of the Technical Services Division's daily operations. Logistics and fleet maintenance are managed by a logistics coordinator and lead mechanic. Staff generally work Monday through Friday, but are subject to after-hours call back based on department needs. Logistics and fleet maintenance are divided into the following sections: fire apparatus maintenance/repair, general vehicle maintenance/repair, small engine maintenance/repair, facility maintenance/repair, and logistical needs such as facility supplies, uniforms, and personal protective equipment.



**Technical Services
Battalion Chief
Greg Chesher**



**Member of PPE Team cleaning and
decontaminating turnout gear.**



Member of SCBA Team working on self-contained breathing apparatus.

Technical Services: Logistics

Logistics is responsible for ensuring that station repairs are completed in a timely manner. This section is also responsible for issuing and tracking uniforms, personal protection equipment (PPE), loose tools and equipment, and issuing supplies to maintain facilities. Logistics maintains a cache of replacement equipment and protective clothing.



Veronica Varn checking supply levels in logistics data base.



Logistics Coordinator

Veronica Varn

Technical Services: Fleet Services

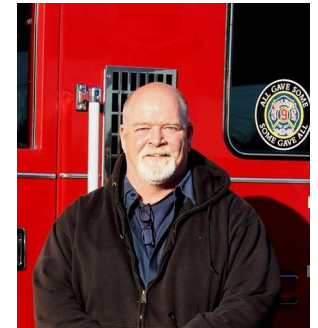
Fleet Services is comprised of Lead Mechanic Bill Palmer and two fire mechanics: Joe Waters and Joseph Williams. These mechanics are certified Automotive Services Excellence (ASE) and Emergency Vehicle Technicians (EVT). Fleet Services is responsible for ensuring that equipment, vehicles and apparatus are kept mechanically sound and ready to respond to emergencies. Fleet Services performs the maintenance on all small engine powered equipment, equipment operated through electrical power supply as well as hydraulic equipment. Fleet Services oversees annual third-party testing of aerial ladders, ground ladders, and fire pumps on apparatus.



Lead Mechanic and members of apparatus committee at Pierce factory for pre-construction meeting for the new Heavy Rescue 101 scheduled to be delivered mid to late 2018.



CFD Mechanic Joseph Williams conducting preventive maintenance on one of the CFD's light duty vehicles.



**Lead Mechanic
Bill Palmer**



Technical Services: SCBA Maintenance Program

Self-Contained Breathing Apparatus (SCBA) are worn by all fire department personnel operating in atmospheres that are considered to be Immediately Dangerous to Life and Health (IDLH). The SCBA Maintenance Program ensures: the department has an adequate quantity of properly trained SCBA Technicians, an adequate supply of approved SCBA replacement parts on-hand, and all SCBAs are tested at least once annually, and repaired as needed.

The CFD has ten (10) personnel certified to test and repair SCBAs. The program is conducted by using personnel when they complete their normal work shift.



SCBA/PPE Program Manager
Captain Albert Grazianni



2017 SCBA Maintenance Statistics

Turnaround time for repairs 24-48 hours

262 SCBAs Flow Tested

229 SCBA repairs made

25 air cylinders repaired

20 face pieces repaired

41 SCBA's upgraded

181 air cylinders hydro tested

1500 work hours logged by SCBA Technicians

Technical Services: PPE Maintenance Program

The Personal Protective Equipment (PPE) Program works in conjunction with the SCBA Maintenance Program. Members working in this program are cross-trained as SCBA Repair Technicians. This program performs annual testing of the protective clothing ensemble worn by firefighters. The ensemble provides limited thermal protection from elevated temperatures encountered during firefighting operations. Technicians clean, inspect, and repair components of the ensemble at least annually or as needed.

This program ensures that all personnel have proper protection to perform firefighting operations and reduces the downtime of gear being out of service. This program has increased efficiency by having in-house personnel trained to perform testing and repairs, virtually eliminating the need to send the gear off to an outside vendor for routine cleaning, inspection, and repair.

2017 PPE Maintenance Statistics

985 sets of Turnout Gear inspected.

393 miscellaneous repairs made to Turnout Gear.

124 sets of Turnout Gear cleaned in addition to being inspected for use as crawl gear for training.

243 sets of turnout gear removed from service due to life span exhaustion.

Average turn around time to clean inspect and repair gear is approximately 48 hours.

Fire Marshal Division

Our dedicated staff strive to preserve life and property through community safety education, effective fire inspections, detailed fire plan reviews, and comprehensive fire investigations. Each of these elements are critical in order for the department to expand its community risk reduction mission and promote preventative strategies.

The division was created in July 2010 with the responsibilities of the Fire Code Official being transferred from the Building Official to the newly created Fire Marshal position. The move organized the elements of fire prevention and community risk reduction within one (1) division. Our team has set out to build robust fire prevention programs to reduce the potential loss of life while preserving the community.

The division is currently responsible for conducting fire safety surveys of new and existing buildings, business license fire safety inspections for new licenses, reviewing plans for fire code compliance, conducting fire and arson investigations, and coordinating a variety of community risk reduction education and outreach programs. The division manages several elements for the department including: the Firehouse records management system, department website, social media, public information requests, news releases and media coordination, and coordinates the pre-fire plan and hydrant maintenance programs.

The Fire Marshal Division’s community risk reduction strategies promote firefighter, citizen and community safety while preserving our historic community.



Deputy Fire Marshal
Rick Fluegge



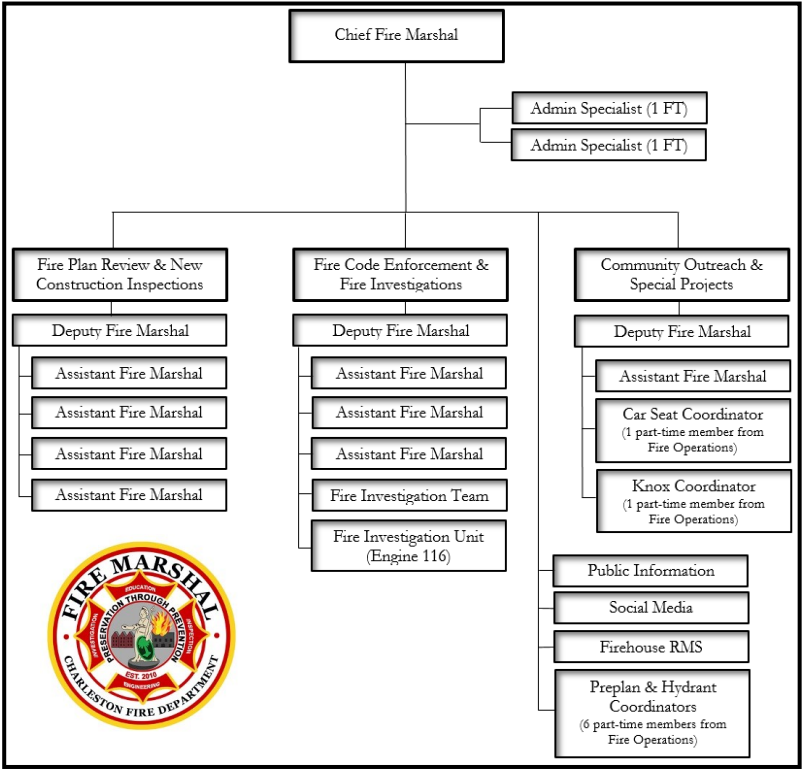
Deputy Fire Marshal
Josh Smith



Deputy Fire Marshal
Daniel Failla



Deputy Fire Marshal Rick Fluegge
conducting a sprinkler inspection.



Community Outreach and Education Activities



Members of the CFD conducting child car safety seat inspections in 2017

	2017							
Qt	Inspection		Reinspect		Plan Review		Total	
	Qt	Month	Qt	Month	Qt	Month	Qt	Month
1st	839	260	459	176	692	230	1,990	666
		277		165		245		687
		302		118		217		637
		230		141		217		588
2nd	834	342	437	153	601	198	1,872	693
		262		143		186		591
		210		160		181		551
		237		128		190		555
3rd	648	201	414	126	578	207	1,640	534
		304		171		188		663
		252		124		142		518
		175		141		141		457
2017								
Totals	3,052		1,746		2,342		7,140	

2017 Code Enforcement and Fire Plan Review Summary



Deputy Fire Marshal Josh Smith presenting at special events vendor meeting.

2017 Community Outreach and Risk Reduction Events	Number of Events	Adults	Children	Smoke Alarms	Car Seats
Apparatus Tours	158	406	776	0	0
Canvas (After the Fire)	9	57	32	4	0
Canvas (Pre Fire)	287	2905	1942	96	0
Car Seat Event (Checkpoint)	7	44	46	0	34
Car Seat Install	28	37	4	0	24
Career Day	2	45	550	0	0
Community Outreach Event	101	4117	4092	7	20
Detector Install, Inspection, or Battery Change	134	256	34	290	0
Display or Booth	12	1996	1644	0	0
Mentor Program	4	40	180	0	0
Parade or festival	11	675	615	0	0
Safety Education - Information Distribution	2	104	20	0	0
Safety Presentation - Business	1	7	0	0	0
Safety Presentation - General	8	259	677	0	0
Safety Presentation - Neighborhood Association	5	160	5	0	0
Safety Presentation - School	76	603	4924	0	0
Safety Presentation - Seniors	2	71	0	0	0
Station Tour	76	180	232	2	0
Grand Total	923	11962	15773	399	78



E118 A-shift Conducting neighborhood canvas Fire In The Streets (FITS) program. Spreading Fire Prevention and Safety Messages.

Fire Investigation Activities

2017 Cause Report for all CFD cases	%	Count
Act of nature	1.35%	5
Cause under investigation	21.62%	80
Cause undetermined after investigation	14.05%	52
Cause, Other	1.89%	7
Failure of equipment or heat source	9.73%	36
Intentional	13.24%	49
Unintentional	38.11%	141
Grand Total	100.00%	370



Intern Paige Hennighan working a Fire Investigation scene.



AFM Dan Failla, Intern Paige Hennighan, and AFM Keith Hutton at Smith Street Fire Scene.

2017 Cause Report for Cases Investigated by the FMD	%	Count
Act of nature	1.55%	2
Cause under investigation	31.01%	40
Cause undetermined after investigation	12.40%	16
Cause, Other	0.78%	1
Failure of equipment or heat source	9.30%	12
Intentional	13.95%	18
Unintentional	31.01%	40
Grand Total	100.00%	129



AFM Keith Hutton taking photographic evidence for a fire investigation.

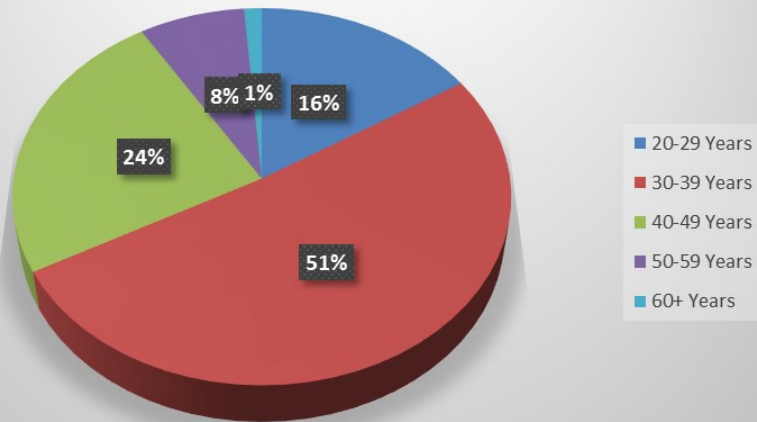
2017 Case Report State for Cases Investigated by the FMD	%	Count
Closed with exceptional clearance	1.55%	2
Investigation closed	62.02%	80
Investigation closed with arrest	3.10%	4
Investigation inactive	6.20%	8
Investigation open	27.13%	35
Grand Total	100.00%	129



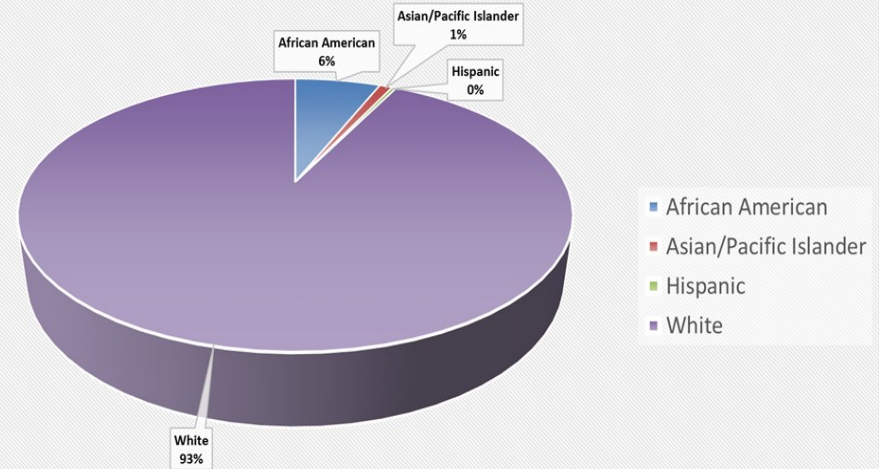
Chief Fire Marshal Julazadeh teaching recruits fire behavior principles used for conducting cause and origin investigations.

Fire Department Personnel Statistical Information

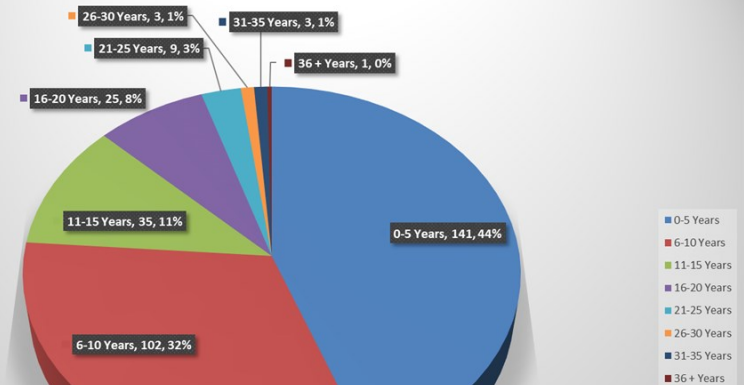
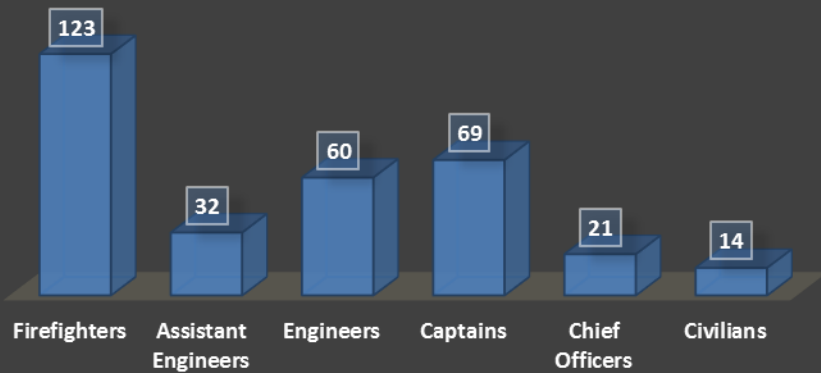
2017 Fire Department Employee Percentages by Age Group



2017 Fire Department Demographics by Race



2017 FIRE DEPARTMENT PERSONNEL BY POSITION



2017 Fire Department Personnel by Years of Service

Charleston Fire Department: 2017 Promotions

Battalion Chiefs

Brian Brown
John Cole
James Jacques
Kenneth Jenkins

Captains

Michael Calabro
David Chappell
Joseph Curtis
Matthew Fogliano
Michael Gorby
Albert Graziani
Brent Gunn
George Justice
Jonathan Massie
Brad Mizzell
John Steinert
Richard Summers
Matthew Thomson
Kyle Weiss

Engineers

Leslie Baker
William Finley
Keith Gordon
Brent Grisham
Justin Kahle
Evan Kraack
Grey Mumpower
Joshua Murphy
Ryan O'Shea
Kyle Riffe
Nicholas Smith

Assistant Engineers

Joseph Adams
Joshawa Bell
Donald Belt
Steven Burzynski
Adam Davis
Thomas Fulmer
Nicholas Harris
John Montone
Sean Nolan
Matthew Tarkowski



Chief Tippet with newly promoted Captains:
M. Calabro, J. Curtis, B. Gunn, M. Fogliano, and
K. Weiss

2017 Retirees

Deputy Chief Mark Davis - 22 years
Asst. Chief Raymond Lloyd - 44 years
Batt. Chief Troy Williams - 22 years
Captain Ronald Droze - 30 years
Captain Earl Dunlap - 24 years
Captain William Johnson - 19 years
Captain Sean Rivers - 16 years
Captain William Taylor - 43 years
Engineer Avery Hill - 12 years
Engineer Adam Mims - 10 years
Engineer Floyd Small - 10 years



Asst. Chief Raymond Lloyd
retired after serving the
citizens of the City of
Charleston for 44 years.

Charleston Fire Department: 2017 Service Awards



CSI First Quarter Blue Dot Award

Captain Ryan Delk received the City's first quarter award for customer service.



Medal of Gallantry

Steven Azzarella
Michael Diaz
Robert Fulmer
Tyler Kurkiewicz
Quent Myers

Fire Chief's Award of Excellence

Gregory Cheshier

Chief Officer of the Year

Robert Baldwin

Captain of the Year

James Richardson

Engineer of the Year

Michael Calabro

Firefighter of the Year

Tristan Davidson

Community Outreach

Jamaal Goss
Jason Dunigan
Ryan Criscio
Kim Drayton
Steven Mantie

Knights of Columbus Firefighter of the Year

Robert Fulmer

West Ashley Optimist Club Firefighter of the Year

Kevin Brophy

Commendations

Bobby Wright
Fire Marshal Division
Technical Services Division

Unit Citations

Engine 116 C-shift
Ryan Delk
Daniel Arthur
Tyson Sohrweide

Squad 101 C-shift

Seth Miller
Parker Shanks

Engine 111 B-shift

Eric Foerster
Daniel Kerns
Travis O'Neill
Paul Tumminia



Captain Robert Fulmer receiving the Knights of Columbus Firefighter of the Year award for 2017. Pictured with his wife and daughter, along with his parents and Mayor John Tecklenburg.



Captain Kevin Brophy recipient of the West Ashley Optimist Club Firefighter of the Year for 2017.

IN MEMORY OF CHARLESTON'S FALLEN

**MAY THEIR SACRIFICE NOT BE IN VAIN,
BUT BE HONORED BY ALLOWING US TO LEARN FROM OUR PAST
AND PAVE THE WAY FORWARD.**

A/ENGR T. GOFF - MAY 25, 1901

DRIVER G. H. SANDERS - JUNE 4, 1902

F.F. E. PARSONS - SEPTEMBER 9, 1902

ENGR. W. NELSON - NOVEMBER 27, 1902

CHIEF O. G. MARJENHOFF - DECEMBER 27, 1906

F.F. A. L. KNICKMEYER - OCTOBER 6, 1910

ACT CHIEF M. J. MORRIS - JULY 17, 1915

F.F. G. H. ZWINGMANN - SEPTEMBER 5, 1915

ENGR. M. L. PRINCE - MAY 27, 1916

F.F. J. F. BRAINOVICH - SEPTEMBER 4, 1916

CHIEF LOUIS BEHRENS - OCTOBER 12, 1932

F.F. J. W. HENDRICKS - MAY 7, 1957

CAPT. E.C. THOMAS - JULY 10, 1961

F.F. H. T. FOSBERRY - OCTOBER 19, 1965

ENGR. F. W. SHEPHARD - DECEMBER 9, 1985

ENGR. R. D. MORRIS - JUNE 29, 1991

F.F. A. TILLMAN - APRIL 2, 1999

CAPT M. BENKE - JUNE 18, 2007

CAPT. W. HUTCHINSON - JUNE 18, 2007

CAPT. L. MULKEY - JUNE 18, 2007

ENGR. B. BAITY - JUNE 18, 2007

ENGR. M. KELSEY - JUNE 18, 2007

ASST. ENGR. M. FRENCH - JUNE 18, 2007

F.F. M. CHAMPAIGN - JUNE 18, 2007

F.F. J. DRAYTON - JUNE 18, 2007

F.F. B. THOMPSON - JUNE 18, 2007

Charleston Fire Station 8 on Huger Street Then and Now



Circa 1917



2017

Cover Design By:

Adam Hurst

Artist and Charleston Firefighter



CHARLESTON FIRE DEPARTMENT

1451 KING STREET EXTENSION

CHARLESTON, SC 29405

HEADQUARTERS: (843)720-1981